

HOLLOW PLUNGER WITH GUIDE INTEGRATED TO BOBBIN ASSEMBLY

Abstract

An actuator suitable for use with a fluid flow control valve includes a
5 frame, a bobbin, a coil and a plunger assembly. The frame is generally cylindrical and
has a longitudinal axis. The bobbin, which is wound with the coil, includes a central
cavity. The plunger assembly is received within the central cavity and includes a
plunger portion and a rod portion. The plunger portion is formed of magnetic
material. The rod portion may be snapped on the plunger portion to form the plunger
10 assembly. The plunger assembly is configured to move within the cavity in response
to an actuator control signal applied to the magnetic coil. Separating the plunger
portion and the rod portion improves manufacturability as well as reduces the
occurrence of rod damage.